IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
SOUTHERN DIVISION
NO. 7:23-CV-897

IN RE:

CAMP LEJEUNE WATER LITIGATION

This Document Relates To:

ALL CASES

DEFENDANT UNITED STATES OF AMERICA'S MEMORANDUM OF LAW IN SUPPORT OF MOTION FOR PARTIAL SUMMARY JUDGMENT (DCE)
(Fed. R. Civ. P. 56(a); L. Civ. R. 7)

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INTRODUCTION

The United States submits the following Memorandum of Law in support of its Motion for Partial Summary Judgment on all claims alleging that dichloroethylene ("DCE") caused any of the Track 1 diseases.[1] As explained below, the Court should grant this Motion.

Plaintiffs allege that, while at Camp Lejeune between 1953 and 1987, they were exposed to drinking water contaminated with several volatile organic compounds ("VOCs"), including trichloroethylene ("TCE"), perchloroethylene ("PCE"), vinyl chloride, and benzene. Plaintiffs also allege that they were exposed to water at Camp Lejeune contaminated with another VOC, DCE. This Motion only concerns DCE and its isomers, such as *trans*-1,2-dichloroethylene, the particular chemical present at Camp Lejeune that was included in the water modeling done by the Agency for Toxic Substances Disease Registry's ("ATSDR").

As this Court has held, the Camp Lejeune Justice Act of 2022 ("CLJA") is a toxic tort action to which common-law tort principles apply by default. *In re Camp Lejeune Water Litig.*, 736 F. Supp. 3d 311, 323–24 (E.D.N.C. 2024). Under those principles, causation requires proof of general causation (i.e., that exposure can cause a particular type of harm) and specific causation (i.e., that an exposure was a cause in fact of an individual plaintiff's harm). *Id.* at 319. This Motion narrowly challenges whether Plaintiffs can prove general causation between DCE and any Track 1 diseases. Plaintiffs cannot.

General causation in toxic tort cases requires admissible expert testimony because it raises complex questions of causation that are not matters of common knowledge. This Court divided expert discovery for the Track 1 diseases into three sequential phases: (i) Phase I, concerning water

[1] The Track 1 diseases are kidney cancer, bladder cancer, leukemia, non-Hodgkin's lymphoma, and Parkinson's disease. (*See* D.E. 23(XI)(A)(i).)

contamination; (ii) Phase II, concerning general causation; and (iii) Phase III, concerning residual issues (i.e., specific causation and damages). (*See* D.E. 270; D.E. 332.) On December 9, 2024, Plaintiffs disclosed fifteen (15) general causation experts and produced twenty-three (23) general causation reports. But almost none of those reports or experts offer anything more than passing references to DCE, much less opinions that DCE can cause any of the Track 1 diseases. The only Phase II expert who discusses DCE in any detail—Steven B. Bird, M.D., an emergency room physician—conflated DCE with a similarly-named but different chemical, dichloroethane. Simply put, Plaintiffs failed across the board to offer any general causation opinions (admissible or not) that DCE can cause any of the Track 1 diseases.

Because there is a lack of evidence supporting general causation between DCE and the Track 1 diseases, all claims based on DCE necessarily fail as a matter of law. Thus, the Court should grant this Motion and enter partial summary judgment in the United States' favor on any claims that a disease can be caused in whole, or in part, by exposure to DCE.

BACKGROUND

Plaintiffs allege that multiple contaminants have been detected in the Camp Lejeune water supply, including several VOCs. (*See* Stmt. Mat. Facts ("SOMF"), ¶¶ 1-2.) One of these is DCE. (*See* SOMF ¶ 2.) Plaintiffs allege that they have suffered serious harm or death as a result of their exposure to water containing DCE. (*See* SOMF ¶ 3.)

For the Track 1 diseases, the Court divided expert discovery into three different phases: (i) Phase I, relating to water contamination; (ii) Phase II, relating to general causation; and (iii) Phase III, relating to residual issues, such as specific causation. (*See* SOMF ¶¶ 4-6.) In Phase II, Plaintiffs disclosed a total of fifteen (15) purported experts and produced twenty-three (23) reports. (*See* SOMF ¶ 7.) Almost none of Plaintiffs' Phase II experts offered anything more than passing references to DCE. (*See* SOMF ¶¶ 8, 17.)

In fact, the most extended discussion of DCE occurs in the General Causation Expert Reports of Steven B. Bird, MD, on kidney cancer, bladder cancer, and Parkinson's disease. (*See* SOMF ¶¶ 8-9.) In those reports, Dr. Bird admits there is "very little data . . . on how [DCE] affects humans and most regulatory bodies have not evaluated its carcinogenicity due to a lack of information[.]" (*See* SOMF ¶ 9.) Dr. Bird claims that the National Toxicology Program ("NTP") classified DCE as "reasonably anticipated to be a human carcinogen" based on animal studies. (*See* SOMF ¶ 10.) In support, he cites the NTP's Fifteenth Report on Carcinogens, published in 2021. (*See id.*) However, there is no NTP classification for the particular chemical at issue in this litigation, which is dichloro***ethylene***; the NTP classification concerns a similarly-named but different compound, 1,2-dichloro***ethane***. (*See* SOMF ¶¶ 11-12; App'x Exhibit 1, NTP 2021 Report, Substances Listed; App'x Exhibit 2, NTP 2021 Report, dichloroethane).[2] Dr. Bird appears to have conflated these two chemicals. In any event, Dr. Bird does not in fact opine that DCE can cause any Track 1 disease. (*See* SOMF ¶ 13.)

The report of PLG's Phase II expert, Dr. Laura Plunkett, Ph.D, is even more threadbare. Dr. Plunkett briefly quotes a case-control study of male breast cancer and Camp Lejeune, Ruckart et al. 2015. (*See* SOMF ¶ 14 (noting that the results "suggested possible associations between male breast cancer and being stationed at Camp Lejeune and cumulative exposure to . . . DCE . . . .")). But the study concerned male breast cancer, which is not a Track 1 disease, and Dr. Plunkett

[2] "A federal court may take judicial notice of factual information located in postings on governmental websites in the United States." *Orr v. E.P.A*, No. 1:21-cv-00149-MOC-WCM, 2021 WL 2593812, at *3 n.1 (W.D.N.C. June 24, 2021) (internal citation omitted). Appendix Exhibits 1 and 2 are publications of the National Toxicology Program, part of the U.S. Department of Health and Human Services, and were posted on an official U.S. government website. Thus, they are self-authenticating. Fed. R. Evid. 902(5); *Williams v. Long*, 585 F. Supp. 2d 679, 686–88 & n.4 (D. Md. 2008) (collecting cases). The United States asks that the Court take judicial notice of Appendix Exhibits 1 and 2 for purposes of this Motion only. *See* Fed. R. Evid. 201(b)(2).

admitted at her deposition that: (1) she did not even try to "do a general causation overall assessment" and (2) she was not asked to opine on DCE. (*See* SOMF ¶¶ 15-16.)

PLG's other Phase II experts reference DCE in passing, but they do not offer any general causation opinions concerning DCE (and neither do Dr. Bird or Dr. Plunkett). (*See* SOMF ¶¶ 17-18.) In short, PLG failed to disclose any general causation opinions concerning DCE.[3]

LEGAL STANDARD

Summary judgment is appropriate when, after reviewing the record as a whole, the court determines that no genuine issue of material fact exists and the moving party is entitled to judgment as a matter of law. *See* Fed. R. Civ. P. 56(a); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247–48 (1986). The moving party must demonstrate the absence of a genuine issue of material fact or the absence of evidence to support the nonmoving party's case. *See Celotex Corp. v. Catrett*, 477 U.S. 317, 325 (1986). Once the moving party has met its burden, the nonmoving party "must come forward with specific facts showing that there is a genuine issue for trial." *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986) (emphasis and internal quotation omitted).

ARGUMENT

To prove a claim under the CLJA, Plaintiffs must prove general causation, or that an agent is capable of causing harm generally. That requires expert testimony as to the agent at issue, which here is DCE. But Plaintiffs offered no such testimony, so they cannot prove general causation as between DCE and any Track 1 diseases. Thus, this Court should grant this Motion and enter partial

[3] To the extent Plaintiffs' experts in Phase III may have expressed general causation opinions as to DCE and any Track 1 disease, such opinions are untimely because they were disclosed long after Plaintiffs' Phase II disclosure deadline, and therefore must be excluded. Fed. R. Civ. P. 16(f); *see* D.E. 444 (granting in part the United States' motion on this issue).

summary judgment in the United States' favor concerning all claims alleging that DCE (alone or as part of a mixture) caused any of the Track 1 diseases.

I. General Causation Under the CLJA Requires Expert Opinion Testimony Between DCE and the Track 1 Diseases, but Plaintiffs Offered None.

Plaintiffs must offer admissible expert opinion testimony to support general causation as between DCE and the Track 1 diseases. That is because "Congress established a CLJA claim as a modified form of toxic tort claim, requiring evidence of both general and specific causation[.]" *In re Camp Lejeune Water Litig.*, 736 F. Supp. 3d at 324. "Ordinarily, toxic exposure torts proceed in two steps—***an expert*** demonstrates that a particular type of harm can be caused by the exposure to a degree of scientific certainty (general causation) and ***an expert*** opines that this plaintiffs[']exposure was a cause in fact of his or her harm (specific causation)." *Id.* at 319 (emphases added). General causation requires a plaintiff to "demonstrate 'the levels of exposure that are hazardous to human beings generally[.]'" *Westberry v. Gislaved Gummi AB*, 178 F.3d 257, 263 (4th Cir. 1999) (quoting *Mitchell v. Gencorp Inc.*, 165 F.3d 778, 781 (10th Cir. 1999)). Exposure, general causation, and specific causation are "not separate 'elements' of a CLJA claim[,]" but "[c]ausation subsumes all three." *In re Camp Lejeune Water Litig.*, 736 F. Supp. 3d at 319. Failure to offer evidence in support of general causation necessarily means that Plaintiffs cannot prove causation, which is fatal to a CLJA claim.

Because the CLJA is a toxic tort claim, "common-law tort principles apply by default." *In re Camp Lejeune Water Litig.*, 736 F. Supp. 3d at 323. And, under those common law principles, general causation requires expert opinion testimony. "In toxic tort cases, causation generally will depend on a qualified expert establishing both general causation and specific causation." *Id.* at 323–24 (quoting *Nix v. Chemours Co. FC*, No. 7:17-cv-189-D, 7:17-cv-197-D, 7:17-cv-201-D, 2023 WL 6471690, at *8 (E.D.N.C. Oct. 4, 2023) (Dever, J.)); *see also In re Deepwater Horizon*

BELO Cases, 119 F.4th 937, 944 (11th Cir. 2024) ("Because [plaintiffs] bring a toxic-tort action . . . they must prove general causation through admissible, reliable expert testimony."); *Zellers v. NexTech Ne., LLC*, 533 F. App'x 192, 196 (4th Cir. 2013) (*per curiam*) (in toxic tort cases, plaintiffs generally "must" prove general and specific causation "through the use of relevant and reliable expert testimony"); *Rhyne v. U.S. Steel Corp.*, 474 F. Supp. 3d 733, 743 (W.D.N.C. 2020); *Zellars v. NexTech Ne., LLC*, 895 F. Supp. 2d 734, 739 (E.D. Va. 2012); *Meade v. Parsley*, No. 2:09-cv-00388, 2010 WL 4909435, at *7 (S.D.W. Va. Nov. 24, 2010).

Here, Plaintiffs' general causation experts barely mention DCE at all, much less offer opinions about the relationship (if any) between DCE and any Track 1 disease. Indeed, the most extended discussion of DCE in all of Plaintiffs' Phase II reports, in the reports of Dr. Steven B. Bird, admitted that there was "very limited data" about how DCE affects humans (if it even does). (*See* SOMF ¶ 9.) That amounts to an admission that Plaintiffs lack evidence to support general causation between DCE and the Track 1 diseases. The sole positive claim made concerning DCE's carcinogenicity—i.e., that the NTP in 2021 classified it as "reasonably anticipated to be a human carcinogen"—rests on a conflation of DCE with a completely different chemical, dichloroethane. (*See* SOMF ¶¶ 11-12.)

Thus, any claim alleging that DCE can cause a Track 1 disease—and any claim to the extent it relies on exposure to DCE—necessarily fails as a matter of law.

II. Plaintiffs Cannot Meet Their Burden to Prove General Causation Between DCE and the Track 1 Diseases by Reliance on Studies Evaluating DCE Within a Mixture of Chemicals.

The United States anticipates that Plaintiffs may attempt to retrofit their Phase II experts' opinions that are generally related to the ATSDR's epidemiological studies of Camp Lejeune as expert opinions concerning the causal relationship between DCE and the Track 1 diseases. To the extent that Plaintiffs make any such argument, it is inapposite. First, Plaintiffs' experts have not

provided the requisite expert testimony regarding the effects of mixtures of agents, including DCE. Second, the reliance of Plaintiffs' experts on ATSDR's studies of Camp Lejeune generally, without offering further analysis, does not constitute the requisite opinion testimony for a general causation opinion concerning DCE and the Track 1 diseases. *See Matsushita Elec. Indus. Co.*, 475 U.S. at 587 (a nonmoving party has the burden to demonstrate triable issues once a moving party has met its initial burden to show a motion for summary judgment should be granted).

Generally, there are "three types of toxicological approaches" for evaluating the effects on humans of exposure to mixtures of chemicals:

> One is based on the standard toxicological evaluation of common commercial mixtures, such as gasoline. The second approach is from studies in which the known toxicological effect of one agent is used to explore the mechanism of action of another agent, such as using a known specific inhibitor of a metabolic pathway to determine whether the toxicity of a second agent depends on this pathway. The third approach is based on an understanding of the basic mechanism of action of the individual components of the mixture, thereby allowing prediction of the combined effect, which can then be tested in an animal model.

Federal Judicial Center, *Reference Manual on Scientific Evidence* 673 (3d ed. 2011); *see also Bombardiere v. Schlumberger Tech. Corp.*, 934 F. Supp. 2d 843, 849 (N.D.W. Va. 2013) ("The task of the toxicologist, therefore, is to identify a dose-response relationship for a particular chemical (or chemical mixture) and illness and analyze the results to determine whether the duration and concentration of exposure in a given instance could have caused the alleged harms.") (internal quotation omitted).

Plaintiffs' experts failed to disclose any opinions regarding the relationship between DCE and any of the Track 1 diseases. (*See* SOMF ¶¶ 17-18.) Plaintiffs' experts did not perform any of the above three toxicological approaches for evaluating the effects of mixtures of chemicals endorsed by the *Reference Manual on Scientific Evidence*. Plaintiffs' experts have not opined on: (1) common commercial mixtures containing DCE; (2) the known toxicological effects of other

agents to explore the mechanism of action of DCE; or (3) the basic mechanism of action of DCE, allowing prediction of the effect of exposure to DCE in combination with other agents and subsequent testing in an animal model. (*See generally* SOMF ¶ 8, n. 1.) At most, Plaintiffs' experts generally cited to a study suggesting an association between DCE and male breast cancer, a non-Track 1 disease, and admitted that there is "very little data" on DCE. (*See* SOMF ¶ 9.) Plaintiffs' experts have failed to offer admissible expert opinion testimony required to show that DCE, alone or as part of a mixture, can cause any of the Track 1 diseases.

While the Fourth Circuit apparently has not addressed the issue, other courts have allowed experts to opine as to the potential effects of exposure to a mixture based on the known effects of exposure to a component agent in that mixture, extrapolating that effect to the mixture at large. *See*, *e.g.*, *Moore v. Ashland Chem., Inc.*, 126 F.3d 679, 695 (5th Cir. 1997), *reh'g en banc granted*, *opinion vacated* (Nov. 12, 1997), *on reh'g*, 151 F.3d 269 (5th Cir. 1998) (*en banc*); *Thompson v. Orkin, LLC*, No. 1:20-CV-13085-TGB-PTM, 2025 WL 18639, at *12 (E.D. Mich. Jan. 2, 2025); *Beck v. Koppers, Inc.*, No. 3:03-CV-60-PD, 3:04-CV-160-PD, 2006 WL 270260, at *6–7 (N.D. Miss. Feb. 2, 2006). But Plaintiffs' experts did not do this. At no point did any of the Plaintiffs' experts opine that exposure to DCE, whether on its own or as a component of a chemical mixture, increases an individual's risk of developing a Track 1 disease. Plaintiffs' experts did not determine whether a dose-response relationship exists between exposure to DCE and subsequent development of a Track 1 disease or evaluate the potential effects of DCE exposure using the well-known Bradford Hill criteria. *See In re Lipitor (Atorvastatin Calcium) Mktg., Sales Pracs. & Prods. Liab. Litig. (No II) MDL 2502*, 892 F.3d 624, 638 (4th Cir. 2018) (explaining the Bradford Hill criteria). Plaintiffs' experts, rather, failed to express opinions on the possible effects of human exposure to DCE. (*See* SOMF ¶¶ 8 n.1, 17–18.) In fact, Dr. Bird candidly admitted that there is

"very little data" about DCE's health effects generally. (*See* SOMF ¶ 9.) "But the courtroom is not the place for scientific guesswork, even of the inspired sort. Law lags science; it does not lead it." *Rosen v. Ciba-Geigy Corp.*, 78 F.3d 316, 319 (7th Cir. 1996) (Posner, C.J.). Thus, Plaintiffs failed to offer requisite toxicological evidence of the possible effects of DCE on humans generally.

Finally, Plaintiffs also may argue that they did, in fact, offer opinions about the harmful effects of DCE in mixtures through their Phase II experts' general discussions of ATSDR's various epidemiological studies of Camp Lejeune. (*See* Bove 2014 Mort. Study - Mil. (JA Ex. 190, D.E. 472-11); Bove 2014 Mort. Study - Civ. (JA Ex. 189, D.E. 472-10); ATSDR 2017 Assessment (JA Ex. 182, D.E. 472-3); ATSDR 2017 PHA (JA Ex. 183, D.E. 472-4); ATSDR 2018 Morbidity Study (JA Ex. 184, D.E. 472-5); Bove 2024 Cancer Incid. Study (JA Ex. 191, D.E. 472-12); Bove 2024 Mort. Study (JA Ex. 193, D.E. 472-14)). But some of those studies—such as the Bove 2024 Cancer Incid. Study or the Bove 2024 Mort. Study—use time on base as a proxy for exposure and do not even analyze DCE specifically.

Further, while many of Plaintiffs' experts discuss those studies generally, they do not opine that a mixture of contaminants containing DCE can cause any of the Track 1 diseases. For example, Dr. Howard Hu discussed ATSDR's epidemiological studies of Camp Lejeune in support of his opinions associating TCE, PCE, and benzene exposure with non-Hodgkin's lymphoma ("NHL"). (Hu GC Rep. at 42–44 (JA Ex. 111, D.E. 466-5) (discussing "the series of epidemiological studies conducted by Bove and colleagues of Camp Lejeune itself" but focusing only on "TCE, PCE, and benzene").) Conspicuously absent from Dr. Hu's opinions is any description of or opinion on the association between exposure to DCE, or any mixture containing DCE, and NHL. (*See id.* at 8 (summary of opinions focusing only on TCE, PCE, and benzene).) Similarly, he opines generally that the combined effect of exposure to TCE, PCE, and benzene is "more likely than not to be at

least additive[,]" but he does not include DCE in that opinion. (*See id.* at 44–45.) Even where PLG's experts include DCE in the definition of TVOCs, they still do not opine that DCE can cause any of the Track 1 diseases. (*Compare* Hatten GC Rep. (Bladder) at 12 (JA Ex. 76, D.E. 463-15) (referring to "TVOC (the combination of PCE, TCE, trans-1,2-dichloroethylene, vinyl chloride and benzene)", *with id.* at 10 (summarizing opinions and omitting opinions on DCE).) In short, such discussions do not focus on DCE, but on the other chemicals allegedly at Camp Lejeune.

Thus, any generalized discussions of ATSDR's studies of Camp Lejeune are not opinions (admissible or not) that DCE, alone or in a mixture, can cause any Track 1 disease and so cannot salvage claims based on DCE.

CONCLUSION

Because there is no evidence to support general causation between DCE and the Track 1 diseases, the United States is entitled to partial summary judgment on Plaintiffs' claims concerning DCE. Further, granting this Motion now will narrow the issues for trial and so advance efficient resolution of this litigation. Thus, the Court should grant this Motion.

Dated: September 9, 2025

Respectfully submitted,

BRETT A. SHUMATE
Assistant Attorney General,
Civil Division

JONATHAN GUYNN
Deputy Assistant Attorney General,
Torts Branch

BRIDGET BAILEY LIPSCOMB
Chief, Camp Lejeune Justice Act Section

ADAM BAIN
Special Litigation Counsel

DAVID R. ORTIZ
GIOVANNI ANTONUCCI
Trial Attorneys

/s/ David R. Ortiz
David R. Ortiz
N.C. Bar No. 55891
Trial Attorney
United States Department of Justice
Civil Division, Torts Branch
Camp Lejeune Justice Act Section
310 New Bern Ave., Third Floor
Raleigh, North Carolina 27601
Phone: (202) 451-7756
david.r.ortiz@usdoj.gov

Attorney inquiries to DOJ regarding CLJA:
(202) 353-4426

Attorneys for Defendant,
United States of America

CERTIFICATE OF SERVICE

I hereby certify that on September 9, 2025, I electronically filed the foregoing using the Court's Electronic Case Filing system, which will send notice to all counsel of record.

/s/ David R. Ortiz
David R. Ortiz